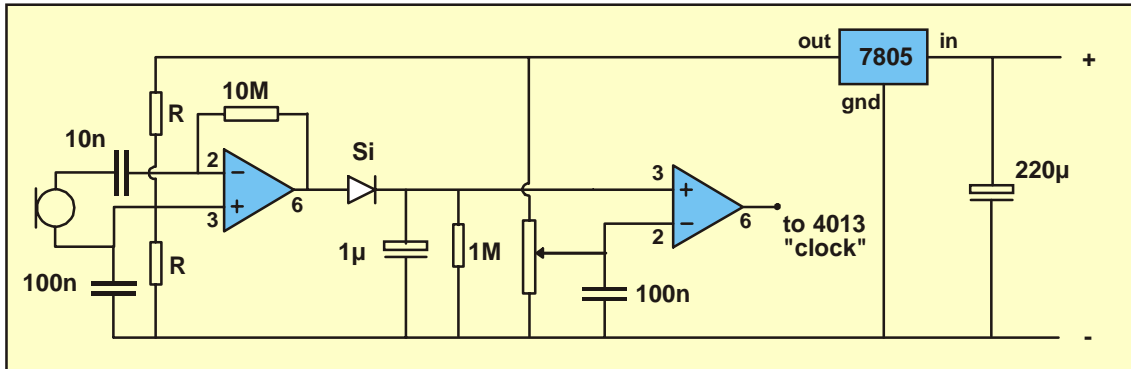


Sound Operated Switch

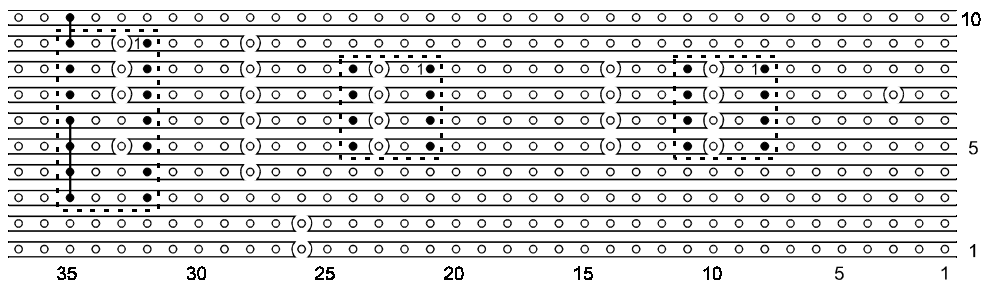
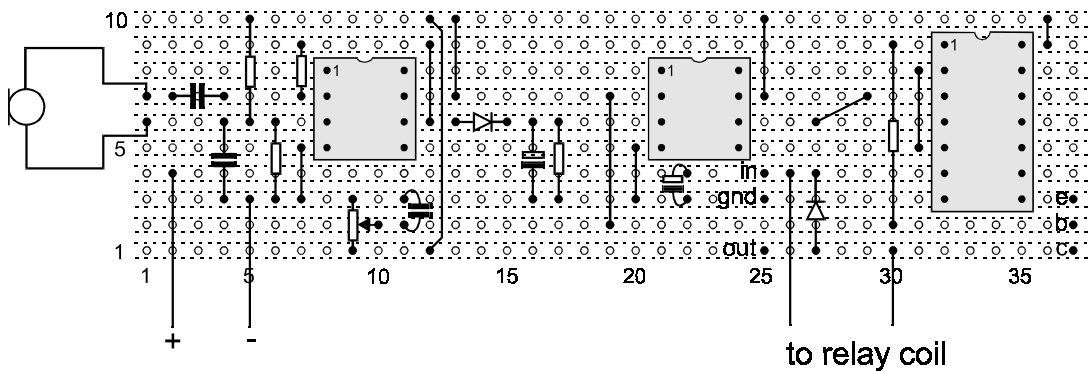


Amplifier: TL081 Comparator: TL081 or CA3140

R can be almost any value greater than about 10k. Use a small (low impedance) loudspeaker as a microphone.

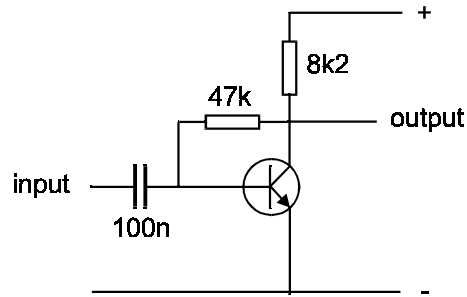
This circuit *must* have a 5v regulated supply. This is provided by the 7805 regulator.

The circuit shown above should be sensitive enough to respond to a reasonably loud clap of the hands at a distance of about a metre from the microphone. If the microphone (loudspeaker) is not *very* close to the circuit board, use *screened lead* to connect it to the rest of the circuit. If you require greater sensitivity, you can add the simple pre-amp shown on the next page.



The sensitivity of the circuit can be adjusted using the variable potential divider connected to the inverting input of the comparator. To set the sensitivity to *maximum*, connect a voltmeter to the output of the second amplifier and adjust the variable potential divider to the point which *just* takes the voltmeter reading to its lowest figure (zero for CA3140, about 1.5v for TL081).

Adding this pre-amp to the sound operated switch will make it *very* sensitive so keep all connecting wires as short as possible.



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